

ABSTRACT

An article of manufacture is provided comprising a vial having (a) a first chamber that is substantially filled with an injectable pharmaceutical formulation; (b) a second chamber that is substantially empty but for a gaseous medium; (c) a septum, impermeable to the gaseous medium, separating the first and second chambers; and (d) actuating means effective to bring the formulation and the gaseous medium into contact by breach of the septum such that the gaseous medium acts as an effective headspace for agitation of the formulation. The formulation comprises an aqueous medium, a drug in solid particulate form in a therapeutically effective amount suspended in the medium, and one or more wetting and/or suspending agents in an amount effective to provide controlled flocculation of the drug, at least one ingredient of the formulation being susceptible to oxidative degradation.